



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,864	02/06/2004	Zoran Kostic	2000-0137CON	5554

26652 7590 09/28/2005

AT&T CORP.
P.O. BOX 4110
MIDDLETOWN, NJ 07748

EXAMINER

HARPER, KEVIN C

ART UNIT PAPER NUMBER

2666

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/772,864	Applicant(s) KOSTIC ET AL.	
	Examiner Kevin C. Harper	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/04</u> . | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

Applicant's arguments filed February 6, 2004 have been fully considered but they are not persuasive.

1. Applicant argued that Godoroja does not disclose transmitting a simulcast message. However, the base stations transmit a simulcast message (fig. 4; col. 5, lines 2-6). The message is a locate signal (fig. 6, item 108).
2. Applicant argued that Godoroja does not disclose control information filling time slots at the beginning of the frame and that control information is in predetermined time slots within the frames such that proximate base stations transmit control information in different time slots. However, control information (fig. 6, such as items 102, 104, 117, 118, etc) is transmitted at the beginning of the frame (fig. 6, items 102 and 104) and varies based on the time slot transmitted by a respective base station (fig. 6, item 117 and 118, col. 7, lines 47-51).
3. Applicant argued that the information types are not located within separate slots. However, simulcast, control and dedicated message information are located in separate time slots (fig. 6, items 102, 104, 117, 118 and 124; note: slots A, B, and C each contain items 117-118 and 124).

Specification

4. The disclosure is objected to because of the following informalities: On page 1, the status of the parent application should be updated to include the respective patent number. Appropriate correction is required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,885,630. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application are subsets of claims 1-11 of the '630 patent.

5. Regarding claims 1, claim 1 of the '630 patent recites all the limitations in addition to reciting extended cyclic extension times and guard times. In removing the additional limitations, the scope of the claim is merely broadened by eliminating elements and their functions. It has been held that omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before. *In re Karlson*, 136 USPQ 184 (CCPA). Also note *Ex parte Rainu*, 168 USPQ 365 (Bd. App. 1969) (omission of a reference element whose function is not needed would be obvious to one skilled in the art). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to not recite extended cyclic extension times and guard times in the '630 patent.

6. Regarding claim 2 and 13, claim 2 of the '630 patent recites these limitations.

7. Regarding claims 3 and 6-7, claim 1 of the '630 patent recites these limitations.

8. Regarding claim 4, claim 3 of the '630 patent recites these limitations.
9. Regarding claim 5, claim 7 of the '630 patent recites these limitations.
10. Regarding claim 8, claim 8 of the '630 patent recites these limitations.
11. Regarding claims 9 and 13, claim 9 of the '630 patent recites these limitations.
12. Regarding claim 10, claim 4 of the '630 patent recites these limitations.
13. Regarding claim 11, claim 5 of the '630 patent recites these limitations.
14. Regarding claim 12, claim 6 of the '630 patent recites these limitations.
15. Regarding claim 14, these limitations have been addressed in the rejection of claims 1 and 2 above.
16. Regarding claim 18, claim 11 of the '630 patent recites these limitations.

Claims 15-17 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 9 of U.S. Patent No. 6,885,630 in view of Godoroja (US 5,485,463).

17. Regarding claims 15-17, claims 1 and 9 of the '630 patent recite a TDMA system with OFDM. However, the '630 patent does not recite frequency reuse. Godoroja discloses frequency reuse in a wireless network (fig. 3; col. 2, lines 25-28) having apparatus for use in the system. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to recite frequency reusing in the '630 patent in order to provide for spectrum efficiency in a wireless network (Godoroja, col. 3, lines 16-18).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2666

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1-4, 10-12, 14-15 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Godoroja (US 5,485,463).

18. Regarding claims 1, 3 and 14-15, Godoroja discloses a method for use in a time division wireless communication system (abstract, lines 1-2). The system transmits simulcast message information (fig. 4, simulcast slot; col. 5, lines 2-6) and dedicated message information (fig. 4, cellular slots) from base stations which are proximately located (fig. 3) and having the same wireless frequency channel (col. 3, lines 35-36). Frames are transmitted by the base stations (fig. 6), which comprise control information (fig. 6, item 104, 106, 108) and allocating simulcast information and dedicated message information to time slots of the same frame predetermined by the control information (col. 6, lines 48-52).

19. Regarding claim 2, the control information (fig. 6, items 102, 104, 117 and 118) is varied between time slots (col. 6, lines 48-52; col. 7, lines 47-51) such that proximate base stations transmit control information at different predetermined time slots (fig. 3; col. 3, lines 63-67).

20. Regarding claims 4 and 11-12, the amount of simulcast information and the dedicated message information varies over time (col. 6, lines 51-53; fig. 6, item 104 and 117).

21. Regarding claim 10, the slots are interspersed (fig. 6).

22. Regarding claim 14, these limitations have been addressed in the rejection of claims 1 and 2 above.

23. Regarding claim 15, the stations have frequency reuse (col. 2, lines 25-28).

24. Regarding claim 18, the information is located in separate time slots (fig. 6, item 102, 104 in the simulcast slot, items 117 and 118 in slots A, B, and C, and item 124 in slots A, B, and C).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5-6, 8-9, 13 and 16-17 are rejected under 35 U.S.C. 103(a) as being obvious over Godoroja (US 5,485,463) in view of Baum (US 6,535,552).

25. Regarding claims 5-6, 8-9, 13 and 16-17, Godoroja discloses a system for use in a time division wireless communication system (abstract, lines 1-2). The system transmits simulcasting information and dedicated message information (figs. 4 and 6) from base stations which are proximately located (fig. 3) and have the same wireless frequency channel (col. 3, lines 35-36). Frames are transmitted by the base stations (fig. 6) which comprise control information (fig. 6, item 104, 106, 108) and simulcast information and dedicated message information are allocated to time slots of the same frame according to and predetermined by control information (col. 6, lines 48-52).

However, Godoroja does not disclose simulcast information being present in time slots with extended cyclic extension time to mitigate channel dispersion. Baum discloses OFDM symbols used in a TDMA system (col. 11, lines 45-54), where the OFDM information symbols have cyclic extensions or guard times (col. 3, lines 50-67). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have OFDM symbols in the time slots of the system of Godoroja in order to achieve spectrum efficiencies realized by OFDM (Baum, col. 1, lines 43-45). Further, Godoroja does not disclose having extended cyclic extensions to mitigate channel dispersion. Baum discloses mitigating greater channel dispersion by using larger cyclic extensions (col. 12, lines 19-31). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have extended cyclic extensions in simulcast information in the invention of Godoroja in order to overcome an increased channel dispersion in the simulcast time slots (Baum, col. 12, lines 27-28).

Allowable Subject Matter

26. Claim 7 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and if the above double patenting rejection is overcome.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 571-272-3166. The examiner can normally be reached weekdays from 11:00 AM to 7:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 571-272-3174. The centralized fax number for the Patent Office is 571-273-8300. For non-official communications, the examiner's personal fax number is 571-273-3166 and the examiner's e-mail address is kevin.harper@uspto.gov.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications associated with a customer number is available through Private PAIR only. For more information about the PAIR system, see portal.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin C. Harper

September 26, 2005